

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEWDocket Number (Optional)
04-533

I hereby certify that this correspondence is being deposited with the United States Patent Office via EFS Web Online Filing

Application Number
10/501,113Filed
July 12, 2004on February 15, 2008Signature /A. Blair Hughes/First Named Inventor
Andrew Robert HarveyTyped or printed
name A. Blair HughesArt Unit
2609Examiner
Eric Rush

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor./A. Blair Hughes/

Signature

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)A. Blair Hughes

Typed or printed name

☒ attorney or agent of record.Registration number 32,901312-913-2123

Telephone number

☐ attorney or agent acting under 37 CFR 1.34.February 15, 2008

Date

Registration number if acting under 37 CFR 1.34 _____

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.☐ *Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 04-533)

In the Application of:)	
)	
Stewart Nathan Ridgley Swatton)	Examiner: Eric Rush
)	
Serial No. 10/501,113)	
)	Art Unit: 2609
Filed: July 12, 2004)	
)	
Title: Optical Biometric Sensor with Planar Waveguide)	Conf. no. 2609
)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW REMARKS

Pre-appeal brief review is requested for the above application. This paper sets forth Applicant's concise statement of clear errors in the Examiner's final rejection.

I. BACKGROUND

Claims 1, 3, 6 and 8-9 are pending in the application and stand finally rejected for obviousness. Pending claims 1 and 8 are independent claims and are reproduced below.

1. A direct optical biometric sensor comprising detecting means for detecting radiation and radiation directing means for directing radiation from a point of contact of an individual with the radiation directing means towards the detecting means in response to contact of the individual with the radiation directing means at the point of contact, wherein the radiation directing means comprises a planar slab waveguide having a core layer with a region which is at least partly exposed and means for introducing radiation into the core layer such that radiation propagates throughout the exposed region thereof characterised in that the sensor further comprises **an interference filter** disposed between the planar slab waveguide and the detecting means.

8. An optical biometric sensor comprising:
a radiation detector;
a radiation director capable of directing radiation from a point of contact of an individual with the radiation director towards the radiation detector in response to contact of the individual with the radiation director at the point of contact, the radiation director further comprising a planar slab waveguide having a core layer with a region which is at least partly exposed and a radiation source for introducing radiation into the core layer such that radiation propagates throughout the exposed region

thereof wherein the sensor further comprises an interference filter disposed between the planar slab waveguide and the radiation detector.

II. TRAVERSE OF THE OBVIOUSNESS REJECTION

Claims 1, 3, 6 and 8-9 stand finally rejected for being obvious over Wong (USP 5,822,445) in view of Johnson (USP 6,444,969). Claims 1, 3, 6 and 8-9 are non-obvious and patentable at least because Johnson does not disclose or suggest the use of an interference filter as the examiner suggests.

A. The Examiner's Position

It is the examiner's position that Wong discloses all of the features of claims 1 and 8 except for a sensor including an interference filter disposed between the planar slab waveguide and the detecting means. It is the examiner's position (1) that Johnson "teaches the placement of an interference filter between the waveguide and detecting means (Johnson Fig. 1 element 20 & Col. 4, lines 24-30).

B. Johnson Does Not Disclose An Interference Filter

All claims are non-obvious and patentable because Johnson does not disclose an interference filter as the examiner maintains. Figure 1 and Col. 4, lines 24-30 of Johnson are reproduced below.

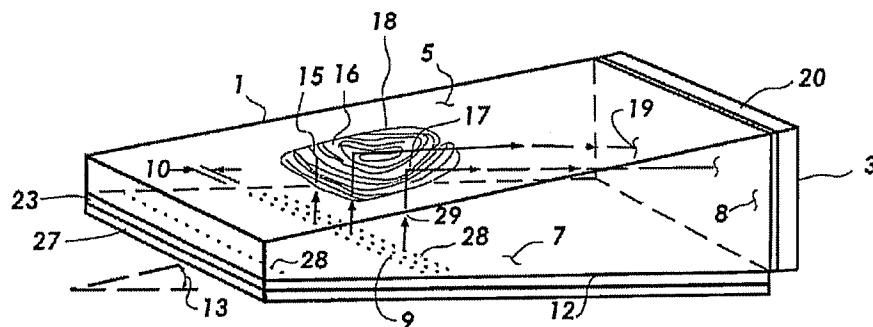


FIG. 1

The sub-beams may be emitted sequentially in a burst and therefore sensed sequentially by a single-receptor photoelectric sensor. The photoelectric sensor may have a filter 20 or may be tuned to detect only the frequency of radiation emitted by the LED array so as to prevent interference from radiation from other sources. Alternatively, filters or shields may be installed on all exposed exterior surfaces of the prism to prevent admission of radiation to the prism from any source other than the LED array. The intensity of the radiation received for each sub-beam in its assign time slot indicates a fingerprint valley or a fingerprint ridge at its corresponding point of illumination. Each pixel of the LED

Clearly the excerpt of Johnson relied upon by the examiner does not refer to filter 20 as an interference filter. Therefore, on this basis alone, the examiner has not set forth a *prima facie* case of obviousness

Moreover, one skilled in the art at the time of the invention would understand that filter 20 of Johnson is not an interference filter. The purpose of filter 20 is to shield the detector from light that does not originate from the LED – to protect the detector from interference. (Johnson at Col. 4, lines 26-30). Therefore in the Johnson application, filter 20 is a simple absorption filter that protects a detector from radiation interference.

An interference filter is not the same as an absorption filter. An interference filter is a known component in optics and a skilled person would understand that this means a multilayered component that rejects light by interference effects. The specification of the instant application teaches that the claimed interference filter has a multi-layer construction and will reject light incident on the filter at a small angle away from normal incidence even if light of the same the same wavelength is passed at normal incidence - this allows closely spaced features to be resolved. (See specification at page 5, lines 6-9). This understanding of the meaning of the term “interference filter” is supported by the Wikipedia description below:

From Wikipedia, the free encyclopedia

interference filter or **dichroic filter** is an optical filter that reflects one or more spectral bands or lines and transmits others, while maintaining a nearly zero coefficient of absorption for all wavelengths of interest. An interference filter may be high-pass, low-pass, bandpass, or band-rejection.

An interference filter consists of multiple thin layers of dielectric material having different refractive indices. There also may be metallic layers. In its broadest meaning, interference filters comprise also etalons that could be implemented as tunable interference filters. Interference filters are wavelength-selective by virtue of the interference effects that take place between the incident and reflected waves at the thin-film boundaries.

(See http://en.wikipedia.org/wiki/Interference_filter). There is absolutely nothing in Johnson that discloses or suggests that filter 20 is an “interference filter” as that term is understood by one skilled in the art.

As noted above, Johnson does use the term interference in the specification. It appears, therefore, that the examiner’s rejection is somehow based upon linking the filter 20 element with the concept of “interference” discussed in Johnson. Merely because the word “interference” appears in line 26 of col. 4, does not mean that the filter 20 is an interference filter. One of ordinary skill in the art would understand that the term “interference” at line 26 refers to preventing detector interference. In this regard, the examiner is picking a choosing from words in Johnson in a void without troubling himself with the technical and scientific facts of Johnson. From a technical perspective and from the words of the reference, Johnson does not disclose or suggest an “interference filter” feature. Therefore,

the combination of Wong and Johnson, does not create a *prima facie* case of obviousness and rejection of claims 1, 3, 6 and 8-9 for obviousness must be withdrawn.

Date: February 15, 2008

By: /A. Blair Hughes/
A. Blair Hughes
Reg. No. 32,901
312-913-2123